

## CLAIMS

*Sub B1*

1. A transparent plastic film having a hard-coating layer on one surface of a plastic base film, wherein, with  $x$  ( $\mu\text{m}$ ) representing a thickness of said base film, and  $y$  (%) representing an elongation percentage at the time when said plastic film having the hard-coating layer is pulled under a condition at  $22^\circ\text{C}$  with one side fixed and at a pulling speed of  $20\text{ mm/min}$ , no crack is generated in the hard-coating layer in a region satisfying a relationship:

$$y < 5.7 \text{ if } x \leq 100,$$

$$y < -0.018x + 7.5 \text{ if } 100 \leq x \leq 150,$$

$$y < -0.008x + 6.0 \text{ if } 150 \leq x \leq 200,$$

$$y < -0.005x + 5.4 \text{ if } 200 \leq x \leq 300,$$

$$y < -0.003x + 4.8 \text{ if } 300 \leq x \leq 400,$$

$$y < -0.002x + 4.4 \text{ if } 400 \leq x \leq 500, \text{ and}$$

$$y < 3.4 \text{ if } 500 \leq x,$$

when a tensile test is carried out under said condition.

2. The transparent plastic film having the hard-coating layer according to claim 1, wherein said plastic base film is a polycarbonate film.

3. The transparent plastic film having the hard-coating layer according to claim 1, which is wound in a roll form.

4. The transparent plastic film having the hard-coating layer according to any one of claims 1 to 3, wherein said plastic base film has a thickness of from  $100\text{ }\mu\text{m}$  to  $500\text{ }\mu\text{m}$ .

*Sub A, >*  
5. The transparent plastic film having the hard-coating layer according to any one of claims 1 to 4, which is used for any one of applications for a display cover, a nameplate, and a packaging container.

6. The transparent plastic film having the hard-coating layer according to any one of claims 1 to 4, which is used for obtaining a molded article having the hard-coating layer given thereto by setting the transparent plastic film having the hard-coating layer on one surface of the plastic base film so that the hard-coating layer faces towards one mold surface in a mold for injection molding, clamping the plastic film so that a cavity is formed between a base surface of said film and the other mold surface, thereafter injecting a molten resin into said cavity and cooling the resin to mold a molded article body, and simultaneously to laminate and integrate said plastic film on a surface of the molded article body, in producing the plastic molded article by injection molding.

7. The transparent plastic film having the hard-coating layer according to any one of claims 1 to 4, which is used for obtaining a plate-shaped molded article having the hard-coating layers given thereto on both surfaces by setting two sheets of the transparent plastic films having the hard-coating layer on one surface of the plastic base film so that the hard-coating layers respectively face towards one mold surface and the other mold surface in a mold for injection molding, clamping the

plastic films so that a cavity is formed between base surfaces of said two sheets of the films, thereafter injecting a molten resin into said cavity and cooling the resin to mold a molded article body, and simultaneously to laminate and integrate said plastic films on both surfaces of the molded article body, in producing the plastic plate-shaped molded article by injection molding.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100